

of great extent, surrounded by a wide ditch (whence the earth had been taken to make bricks), and a wall 300 feet high or more. On the summit of the wall were watch-towers at short intervals, and in it were a hundred massive gates of brass, with hinges and frames of the same material. In *Isaiah* mention is made of "gates of brass." The city is described as regularly divided into parallel streets, with houses three or four stories high. Avenues leading to the river crossed these at right angles, and each was terminated by a gate in the wall.

The Temple of Belus is described by Herodotus as an enclosure two furlongs square, closed with huge gates. In the midst was a tower of the depth and height of a furlong, "upon which, resting as a base," were seven other turrets in regular succession. The ascent was by a winding road, carried round the outside. I annex the outline of such a



FIG. 8.

structure. It is the type of a large number of monuments. If you recall the height of St. Paul's Cathedral, which you examined so scientifically the other day with the philosophic F—, you will see that these dimensions are so enormous as to be scarcely credible. Concerning the magnificence of Babylon, "the glory of kingdoms, the beauty of the Chaldees' excellency" (as *Isaiah* terms it), all the ancient historians are unanimous, and would lead to an idea of grandeur of which no modern city gives an example, including palaces, mounds, canals, bridges, and lakes. According to Diodorus, the palace was surrounded by three enormous walls, which were ornamented with animals in relief, richly painted in their natural colours on the bricks, and burnt in.

Amongst the extraordinary traces of Babylon still remaining is an enormous ruin, which is supposed to be the temple of Belus. The bricks of which this is composed have inscriptions on them, and the cement by which they are connected is so excellent, that it is nearly impossible to extract one whole.

Whether or not the form of the Tower of Babel was similar to the description given of the Temple of Belus, or whether or not there was even a closer connection between them, is uncertain. A tradition still current amongst the Arabs ascribes to Nimrod the erection of a high tower to reach to Heaven, which was overthrown the day after it was finished. Some enormous ruins, chiefly of burnt bricks, which remain, are still called by them Nimrod's towers ("Birs Nemroud").

The pyramidal form, as we shall hereafter see, was long prevalent in India, Mexico, Egypt, Greece, and other countries, and many ancient buildings, in steps or stories, similar to the Temple of Belus, which I have described, are to be found; as, for example, the Hindu temples at Chalemburum and Tangore, the great Mexican temples, and some of the smaller Egyptian pyramids. This rough pen-scratch represents one of the latter.

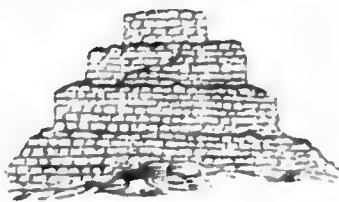


FIG. 9.

Until very recently little or nothing was known of the ruins in Assyria and Babylon. Mr. Rich, in 1820, was the first person who ex-

amined and described the remains there at any length; but until four years ago our knowledge on the subject was of the most confined nature. It was left for Dr. Layard and M. Botta to investigate these mysterious mounds, the contents of which have rendered us familiar with the people and their art to an extent that could not have been anticipated, and have corroborated in a wonderful manner many parts of the holy writings. You, I know, have seen and studied with your usual intelligence and energy the surprising relics of a mysterious past—winged bulls and engraved slabs—which have reached us through Layard's researches, and have been deposited in some cellars at the British Museum. They have been so long buried, that it was, perhaps, thought they could not yet stand the light. It is scarcely possible to contemplate these wonderful monuments—some of them contemporary with Abraham, and dating probably more than 2,000 years before our era—without emotion. These inscribed stones were the records of that early time—and well have they fulfilled their office. The practice of thus chronicling events is often referred to in the Bible. Ezeiel, you will recollect, was told "to take a tile, and portray upon it the city of Jerusalem."

These slabs are of alabaster or gypsum, which was found in large quantities on the spot, and they were used to case the walls of sun-dried bricks which enclosed the halls; above them coloured tiles were probably used. The walls went up only a certain height, perhaps 18 or 19 feet, and were very thick, from 16 feet to 20 feet. The winged lions formed the entrances. On the top of the walls, it is suggested, were placed two rows of short pillars (one on the inner, the other on the outer edge of the wall), which supported a flat roof of mud, and thus formed a series of upper chambers or galleries. As you are a reader of *The Builder*, you will remember a fuller account of this theory, as set forth by Mr. Fergusson (vol. ix. pp. 147 and 184); and of the remarkable progress that has been made in deciphering the cuneiform or arrow-headed characters which compose the inscriptions. The effect of the courts, with their colossal lions and bulls, their sculptured sides and painted and gilded decorations, must have been singularly imposing. We cease to wonder that Nineveh, now "a desolation and a waste," was the admiration and glory of the ancient world. From Assyria, Greece probably obtained part of her art, as we shall see by and by. If I occupy you longer, however, on this point, you will regret the expression of your opinion to which I alluded at starting, and I cannot afford to tire you yet, and so to lose your cheerful countenance. I shall be glad if you find every letter too short, and that it suggests to you more than it tells.

Believe me always yours,

Algretto.

#### ROYAL ACADEMY LECTURES ON ARCHITECTURE.

PROFESSOR COCKERELL, in his fifth lecture, proceeded to consider the great exemplars of antiquity; that school of forty centuries to which the great masters of theory in art referred in all their treatises. The study of antiquity showed what had hitherto seemed good in the eyes of men, and what was likely to appear so in the future. A man ignorant of the past, and without aspirations for the future, was like the beasts that perish; but enlightened by the page of history, his brief knowledge was extended over the forty centuries to which Napoleon had appealed in the battle of the Pyramids. Vast indeed was the growth of the soul by the contemplation of history; and the architectural remains of antiquity were especially recommended by their beauty; because relics so enduring must have been founded on geometrical, mechanical, or æsthetic principles; and whatever had so come down to the present age, as the result of long practice and skilful processes, claimed the highest respect and the most careful investigation. By these we might be enabled to restore some obsolete principle of art, or redeem some forgotten merit of the past.

There was scarcely a relic of well preserved antiquity from the study of which we might not become wiser and better men. That superstitious reverence for the past which led to a love of antiquity for itself alone, should, however, be most carefully avoided. It was evident that our ancestors were men like ourselves, equally liable to vanity, eccentricity, affectation, and fashion, and that genius and energy were as rare among them as in the present day. Great were the obligations of the architect to the antiquary. The province of the latter was the investigation of truth and fact, by scholarship and calculation. The aim of the architect, on the contrary, was invention: he was bound to consult that imagination which the antiquary snubbed and deprecated: his mind was devoted to the delights which he might borrow and appropriate from antiquity.

All the great architects of the Revival acted on this principle with immense success, and none among them more so than Palladio and his followers, Inigo Jones in England, and Vignola in France. Not only was the study of antiquity necessary to the architect, but embellishing, profitable, and delightful: his pleasure in the study of the fragments of ancient art was as great, indeed, as that of the child in the restoration of his dissected map or picture.

In reference to the study of antiquity, Vasari, in his "Life of Brunelleschi," spoke of the astonishment and rapture of that great architect on arriving at Rome, and beholding the vastness and perfection of its ancient edifices. Vasari, however, expressly states that he gave orders for the measuring of cornices and taking plans, whilst he himself spared neither time nor expense, and cared neither for food nor sleep, whilst he devoted himself to the examination of all those remains which were really excellent. This, indeed, was true economy. The time and thought of Brunelleschi were too precious for more mechanical operations, and therefore he did not dull the edge of his genius by elaborate measurements, which an ordinary assistant might undertake. It was a common error of the artist to engage in futile and expensive labour, with a view to economy.

The architect should also avoid sacrificing his time to the study of obsolete and impracticable styles, such as the Egyptian, Chinese, or Saracenic; which he could scarcely ever have to employ in this country. However agreeable and interesting these styles were, scarcely any practicable result could arise from them, and they were mere matters of learning and curiosity. Rude and primitive in taste, they were tainted with a vile superstition, which determined all their forms and colours, without the slightest reference to nature. No English architect would wish to reproduce Egyptian temples in York or London, or to see a modern palace covered with painted hieroglyphics: all the mind and character of Egyptian architecture was indeed out of date, and belonged to another hemisphere, and a distinct race of men.

On the score of practical utility, he felt also bound to place the architecture of Greece only next above that of Egypt. But the pilgrimage to the Parthenon would be ever justifiable. The teaching of Socrates and Plato was associated with their classic architecture, and the devoted admiration of it which the Greeks themselves displayed was proved in many ways. The knowledge of the scope of art among the Greeks was visible in every fragment of the sculptor's and the potter's art, which they had left behind them; and these remains led to artistic reflections, which must guide the artist whenever he was tempted by the meretricious graces of inferior styles. Still there was little that could be practically useful in Greek architecture. Its application to a horizontal country like our own he had before shown to be unsuitable, and the numerous valuable publications of Stuart and Revett, the Dilettanti Society, and others in France and elsewhere, embraced ample information for the English architect.

To show, however, the extent to which the study of antiquity might be useful, the lecturer